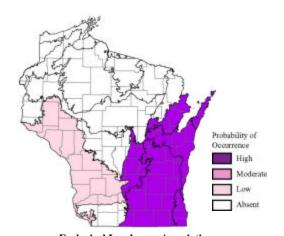
# Forster's Tern (Sterna forsteri)

## **Species Assessment Scores\***

State rarity:	4
State threats:	3
State population trend:	3
Global abundance:	4
Global distribution:	2
Global threats:	3
Global population trend:	2
Mean Risk Score:	3
Area of importance:	2

<sup>\*</sup> Please see the <u>Description of Vertebrate Species</u> <u>Summaries (Section 3.1.1)</u> for definitions of criteria and scores.



Ecological Landscape Associations
Please note that this is not a range map. Shading does not imply that the species is present throughout the Landscape, but represents the probability that the species occurs somewhere in the Landscape.

## Lands cape -community Combinations of Highest Ecological Priority

	Ecological Landscape	Community
	Central Lake Michigan Coastal	Emergent marsh
	Central Lake Michigan Coastal	Lake Michigan
	Central Lake Michigan Coastal	Submergent marsh
	Central Sand Hills	Emergent marsh
	Central Sand Hills	Impoundments/Reservoirs
	Central Sand Hills	Inland lakes
	Central Sand Hills	Southern sedge meadow
	Central Sand Hills	Submergent marsh
	Northern Lake Michigan Coastal	Emergent marsh
	Northern Lake Michigan Coastal	Impoundments/Reservoirs
	Northern Lake Michigan Coastal	Lake Michigan
	Northern Lake Michigan Coastal	Submergent marsh
	Southeast Glacial Plains	Emergent marsh
	Southeast Glacial Plains	Impoundments/Reservoirs
	Southeast Glacial Plains	Inland lakes
	Southeast Glacial Plains	Southern sedge meadow
	Southeast Glacial Plains	Submergent marsh
	Southern Lake Michigan Coastal	Emergent marsh
	Southern Lake Michigan Coastal	Impoundments/Reservoirs
	Southern Lake Michigan Coastal	Lake Michigan
	Western Coulee and Ridges	Emergent marsh

### **Threats and Issues**

- Forster's Terns nest in emergent marshes associated with large lake/wetland complexes. Habitat loss and degradation, and habitat isolation and fragmentation, due to drainage, filling, and lake shore development are the principal threats to this species.
- In some cases, nesting habitat has been lost due to artificially high water levels maintained by manmade dams (e.g., Lake Koshkonong, Rush Lake, Lake Puckaway, Pewaukee Lake, Winnebago Pool

- Lakes), or by natural, extended periods of high water (e.g., Green Bay in the mid-1970's and mid-1980's), which compromised or eliminated marsh emergent vegetation.
- Purple loosestrife may dominate native vegetation and form stands too dense for nesting Forster's
  Terns. Eurasian carp activity is another factor involved in the disappearance of suitable nesting
  habitat.
- In the mid-1980s, chemical contamination (e.g., dioxin, PCBs) from the industrialized lower Fox River contributed to longer incubation periods, lower hatching success, lower chick and embryo weights, and more developmental anomalies.
- Human disturbance, particularly prolonged disturbance, is a potential threat because of the possibility of exposing eggs or chicks to adverse weather that could result in egg/chick mortality. Weather and predation are the main causes of egg loss and chick mortality for Wisconsin Forster's Terns.
- Great Horned Owl predation has been identified as a mortality factor for terns.

#### **Priority Conservation Actions**

- Initiation of major lake or wetland ecosystem renovation projects where breeding habitat is declining is the most important management action. The highest priority Wisconsin sites in descending order are: 1. Rush Lake; 2. Winnebago Pool Lakes; (including Lake Poygan) 3. Green Bay west shore; 4. Horicon Marsh Wildlife Area; and 5. Big Muskego Lake.
- The use of artificial nesting platofrms is appropriate to maintain populations where feasible.
- At managed state properties, it will be important to maintain long-term productivity of marshes by mimicking natural hydrologic regimes and adapting management techniques to localized conditions. Periodic drawdowns will benefit this species.
- Control of carp and purple loosestrife is an ongoing concern. Removal of loosestrife by uprooting
  plants, water-level manipulation, biological control (weevils, etc.), mowing, burning, or herbicide
  applications is recommended.
- At some sites, removal of Great Horned Owls (or mink) known to kill chicks may be essential to maintain or preserve colony productivity.
- During the nesting season, water levels must remain stable. Water levels that encourage the stability of emergent patches must be a part of comprehensive management plans.
- Continued monitoring of extant colonies to document long-term population trends is needed so that listing and delisting decisions can proceed.
- Training on when to monitor colonies and what data to collect will be needed as more individuals become involved with data collection.
- At a broader level, efforts to raise awareness about tern ecology in lake and wetland ecosystems are an ongoing intradepartmental and public concern.
- Both an institutional framework and partnership alliances that adopt an ecosystem approach to wetland conservation will benefit this species.
- Partnerships between the WDNR and organizations dedicated to wetland conservation are essential to the long-term management and conservation of wetland complexes that provide breeding habitat for this species.